

10561236

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 January 2005 (13.01.2005)

PCT

(10) International Publication Number  
**WO 2005/002619 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 39/118,**  
39/40

(74) Agents: **HAI, E., Rebecca, M.** et al.; Chiron Corporation,  
Intellectual Property R338, P. O. Box 8097, Emeryville,  
CA 94662-8097 (US).

(21) International Application Number:  
PCT/US2004/020491

(81) Designated States (*unless otherwise indicated, for every  
kind of national protection available*): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(22) International Filing Date: 25 June 2004 (25.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0315020.8 26 June 2003 (26.06.2003) GB  
60/497,649 25 August 2003 (25.08.2003) US  
0402236.4 2 February 2004 (02.02.2004) GB  
60/576,375 1 June 2004 (01.06.2004) US

(84) Designated States (*unless otherwise indicated, for every  
kind of regional protection available*): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **CHI-  
RON CORPORATION** [US/US]; 4560 Horton Street,  
Emeryville, CA 94608-2916 (US).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:  
1 September 2005

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(72) Inventors; and  
(75) Inventors/Applicants (*for US only*): **GRANDI,**  
**Guido** [IT/IT]; c/o Chiron Corporation, P.O. Box  
8097, Emeryville, CA 94662-8097 (US). **FINCO,**  
**Oretta** [IT/IT]; c/o Chiron Corporation, P.O. Box 8097,  
Emeryville, CA 94662-8097 (US). **RATTI, Giulio** [IT/IT];  
c/o Chiron Corporation, P.O. Box 8097, Emeryville, CA  
94662-8097 (US). **BONCI, Alessandro** [IT/IT]; c/o  
Chiron Corporation, P.O. Box 8097, Emeryville, CA  
94662-8097 (US).

(54) Title: IMMUNOGENIC COMPOSITIONS FOR CHLAMYDIA TRACHOMATIS

(57) Abstract: The invention relates to compositions comprising combinations of *Chlamydia trachomatis* antigens and their use in vaccines. Specific combinations may be selected from a first antigen group of PepA, LcrE, ArtJ, DnaK, and CT398, and a second antigen group of PepA, LcrE, ArtJ, DnaK, CT398, OmpH-like, L7/L12, OmcA, AtoS, CT547, Eno, HtrA and MurG. The invention further relates to the use of combinations of adjuvants for use with antigens associated with a sexually transmissible disease, such as *Chlamydia trachomatis* antigens. Preferred adjuvant combinations include mineral salts, such as aluminium salts and oligonucleotides comprising a CpG motif.



WO 2005/002619 A3